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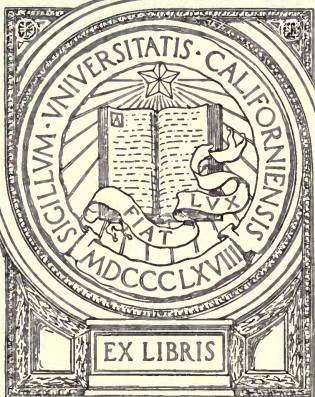
List of Mines of Utah, Represented
by Samples of Ore at the North,
Central & South American Industrial
Exposition, at New Orleans, La.

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LIST

—OF—

MINES OF UTAH,

REPRESENTED BY SAMPLES OF ORE

—AT THE—

NORTH, CENTRAL & SOUTH AMERICAN

INDUSTRIAL EXPOSITION,

»AT NEW ORLEANS, LA.«

P. EDW'D CONNOR, COMMISSIONER FOR UTAH.

CLIFT HOUSE,

HEADQUARTERS

—FOR—

MINING & STOCKMEN,

SALT LAKE CITY, - - UTAH.

FRANK FOOTE

ASSAYER

Salt Lake Sampling Works,

SALT LAKE CITY, UTAH.

The Only Sampling Mill in Utah Using Rolls.

Whereby I can guarantee an accurate sample of all classes of ore by crushing to any desired fineness so as to obtain the actual value. The works will be under my entire supervision. All consignments will receive prompt and careful attention.

CITY OFFICE, 139 S. MAIN ST. MILL, NEAR U. C. DEPOT.

P. O. BOX, 565.

LIST

—OF—

MINES OF UTAH,

REPRESENTED BY SAMPLES OF ORE

AT THE—

NORTH, CENTRAL & SOUTH AMERICAN

INDUSTRIAL EXPOSITION,

AT NEW ORLEANS, LA.

P. EDW'D CONNOR, COMMISSIONER FOR UTAH.

Parties Desiring Information Concerning

MINING AND LIVE STOCK INVESTMENTS.

Enquire at the

UTAH EXHIBIT.

of P. EDWARD CONNOR,

Commissioner.

TN 24

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List of Mines of Utah.

UINTAH DISTRICT—SUMMIT COUNTY

ONTARIO MINE—(Patented.)

Located July 19, 1872. Is a true fissure vein, in a quartzite country rock, associated with and parallel to a large dyke of porphyry. The general course is nearly E. and W. and dips north from 60° to 80° below the horizon. The ore-chute is 1,500 feet long, varying in width from six inches to ten feet—average width about three feet. Average assay value \$146. It is milling ore, dry crushing, and using Stetefeldt chloridizing furnace and amalgamation. Ninety-three thousand eight hundred tons of ore extracted and worked, market value \$125.60 per ton including bullion discount. Has produced \$11,725,000 down to the 600-foot level, or nearly \$2,000,000 from each level of 100 feet in depth by 1,500 feet long. The 700 and 800-foot levels are now being opened, and the main working shaft is down to the 900-foot level ready to cross-cut the vein. Pays regular monthly dividends of \$75,000. Owned by the Ontario Silver Mining Company; J. B. Haggin, President, San Francisco, Cal.; R. C. Chambers, Superintendent, Salt Lake City, Utah.

McHENRY MINE—(Patented.)

Located in 1872. Course of vein nearly E. and W.; dip north, nearly vertical; length of ore-chute unknown. Country rock quartzite and porphyry. Drain tunnel in about 1,500 feet and 400 feet below discovery outcrop. Average value of ore about \$80 per ton; (no statement of the output). Situated one and one-half miles east of the Ontario and probably on the same fissure. Owned by an incorporated company in Amsterdam, Holland; F. A. Van Hall, President, Utrecht, Holland; J. H. F. Van Enschat, Agent, Park City, Utah.

GLENCOE MINE.

Located in 1879. Course E. and W. (dip not given); length of ore-chute 1,500 feet. Country rock quartzite and porphyry. Smelting ore—65 per cent. lead and 55 ozs. silver per ton. Tunnel on vein 460 feet long; 250 tons of ore extracted. Owned by Richard Grant and Michael Shaughnessy, Salt Lake City, Utah.

FOURTH OF JULY MINE—(Patent Applied For).

Located Aug. 30, 1880. Course of vein N. 86° $30'$ E.—(dip not given). Country rock quartzite, limestone and porphyry. Smelting ore—42 per cent. lead, 69.62 ozs. silver per ton. Depth of shaft 50 feet; drift east 50 feet and west 25 feet on vein—

304998

20 tons of ore extracted; market value about \$75 per ton. Owned by Thos. Cupit, E. A. Shear, J. S. Cook and Patrick F. Brennan, all of Park City, Utah.

LOWELL MINING COMPANY.

A strong fissure lode in quartzite and porphyry country rock. Course of lode E. and W.; dip N. 70 degrees below the horizontal plane. Is an easterly continuation of the Ontario lode. Average assay, about 70 oz. silver per ton; ranging from 30 to 500 ozs. per ton. Depth of engine shaft 324 feet; length of levels on 224-foot station 600 feet. Began stoping June, 1882. Cross-cutting and level started on 324-foot level; vein 60 feet between walls, with ore-streak six inches to six feet on each wall. Samples of ore on exhibition; milling ore like the Ontario. Owned by Walker Bros. and Dr. J. M. Williamson, of Salt Lake City, Utah.

JUPITER AND LIBERTY MINES.

Jupiter located Oct. 3, 1874, and Liberty located April, 1881—Patents applied for. Course of Jupiter, N. E. and S. W., and of Liberty, E. and W. Country rock silicious lime and shale. Length of ore-chute unknown. Workings consist of a tunnel 160 feet long and an incline 40 feet deep; eight or ten tons of ore out. Assays range about 40 per cent. lead, 150 to 800 ozs. silver, \$5 to \$250 gold and 10 to 18 per cent. copper per ton. Smelting ore. Owned by the Park Mining & Milling Company, of Council Bluffs; J. J. Russell, President, Des Moines, Iowa; J. L. and Chas. Street, Local Agents, Park City, Utah.

CREOLE MINE—(Patent Applied For).

Located July 4, 1875. Course N. E. and S. W.; length of ore vein 1,497 feet. Country rock quartzite. Assays, lead 30 to 60 per cent., 20 to 50 ozs. silver per ton. Incline down 35 feet and, a shaft 20 feet at bottom of incline; a tunnel 112 feet to cut the vein. Samples on exhibition. Owned by David F. Condon, E. Condon and Frank R. Moore, Park City, Utah. Smelting ore.

EMPIRE MINE—(Patented).

Course of vein E. and W.; dip N. at a very steep angle. Is a true fissure vein in quartzite country rock. Main shaft down 400 feet; four cross-cuts from shaft to the vein. One thousand tons of ore extracted, worth in the market \$75 per ton. Samples on exhibition, assaying from \$200 to \$600 per ton. Owned by the Empire Mining Company of Utah, G. D. Crowell, President, 52 Wall street, New York; J. F. Crowell, Manager, Salt Lake City, Utah.

PROVO IRON MINE.

Located in 1878. Course N. E. and S. W.; country rock is limestone; used for a flux in smelting the lead ores of the district. Analysis:

Silica.....	12 to 40 per cent.
Iron.....	62 per cent.
Alumina.....	trace.
Carbonate Lime.....	trace
Sulphur.....	0.50-100.
Oxygen.....	24.

Ore-bed varying 55 to 85 feet wide—depth unknown—15 feet being the deepest workings. Fifteen hundred tons of ore extracted, worth \$12 per ton at Park City. Owned by Park City Smelting Company, of Michigan; H. J. Hollister, President, Grand Rapids, Michigan; E. P. Ferry, General Manager, Park City, Utah.

WOODSIDE MINE—(Patented).

Located in 1872. Course of vein northeasterly; is a bedded vein in lime and shale country rock; the ore-chutes irregular and pockety. Assays—lead, 40 per cent., 60 ozs. silver and \$4 to \$7 gold per ton. Five hundred feet of drift and levels run. Market value of ore per ton, \$70. Is a good smelting ore. Owned by Edward P. Ferry, Park City, Utah.

REBELLION MINE—(Patent Applied For.)

Located in December, 1879. Course of vein N. 74° E.; has a limestone foot-wall and a shaly lime hanging-wall. Is a bedded vein, one to eight feet thick, dipping nearly north at angles varying from 18° to 25° below the horizon. The working tunnel is in 460 feet, drifts and stopes on ore about 300 feet. Twelve hundred tons of ore extracted; average assay, about 56 per cent. lead, 80 ozs. silver and \$5 gold per ton. A splendid smelting ore; good samples on exhibition. Owned by the Rebellion Silver Mining Company of Utah. E. P. Ferry, President, Park City.

SILVER KEY MINE.—(Patent Applied For.)

Located in 1879. Course of vein N. E. and S. W.; length of ore-chute 100 feet as far as developed. Foot-wall, bluish limestone; hanging-wall, shaly limestone. Assays show 45 per cent. lead and 50 ozs. silver per ton—a good smelting ore. Owned by the Silver Key Mining Company; U. J. Wenner, President and Manager, Park City, Utah.

[I have included all these mines in the Uintah District, because they all belong in the same group, and all have Park City for the centre of population and supply and postoffice address. More than half the mines are not represented.—J. E. C., Commissioner.]

GORDON MINING DISTRICT—BEAVER AND MILLARD COUNTIES.

CAVE CREEK MINING CLAIM.

General course of deposit N. and S. Sulphur beds mixed with earthy impurities. Owned by Ferdinand Dickert, Salt Lake City.

BEAVER MINING CLAIM.

Located in 1870. General course of deposit N. and S; extent of claim 2,000x

1,300. Crude sulphur mixed with earthy matter; depth of beds unknown—at a depth of 28 feet the sulphurous gasses prevented further progress. Owned by Ferdinand Dickert, Salt Lake City.

SULPHUR KING MINING CLAIM.—(Patented).

General trend of deposit N. and S. Owned by Ferdinand Dickert, Salt Lake City.

MAMMOTH MINING CLAIM.—(Patented).

Sulphur bed. General course N. and S. Owned by Strohm & Reitzenstein, New York City, and Ferdinand Dickert, Salt Lake City.

UTAH & CONQUEROR MINING CLAIM.—(Patented).

Located June, 1875. General course of deposits or beds, N. and S.; extent of claim 1,500 by 600; depth of beds unknown. Owned by F. W. Billing, Salt Lake City, and G. Billing, Denver, Colorado.

[These sulphur beds are very extensive and capable of supplying any required amount of crude sulphur at very small cost for labor.]

BEAVER LAKE MINE, NO. 2.—(Patented).

Discovered 1880. Course N. W. Smelting ore; lead, 75 per cent, silver 100 to 130 ozs. and \$8 gold per ton. Output 185 tons, market value \$80 to \$120 per ton. Owned by Philip Schwartz., Frisco, Beaver county, Utah.

CAMP FLOYD DISTRICT.

GEYSER MINE.

Located in 1872. Course N. and S.; a magnesian shale and lime bed, carrying 3 per cent. mercury and a few dollars in gold per ton. The ore bed is traceable for a mile or two in length, and lies 150 to 200 feet above the Carrie Steel and Sparrowhawk silver zone of quartzite. Owners, Matthew T. Gisborn and E. F. Doyle, Salt Lake City, Utah.

TIP TOP MARBLE QUARRY.

Near Wah Wah Springs. Discovered 1882. Course N. E. and S. W.; beds in contact with granite. Owner, Ben. Johnson, Frisco, Beaver county, Utah.

PREUSS DISTRICT—BEAVER COUNTY.

CONTACT MARBLE QUARRY.

Located 1879. Course of bed E. and W.; traced out 900 feet long; sawing and cutting marble; 15 tons quarried. Owners, Henrichsen & Schwartz, Frisco, Beaver county, Utah.

CONTACT MINE.—(Patented).

Located in 1879. Course N. E. Smelting ore—lead, 20 per cent.; silver, 185 ozs, and gold \$10 to \$12 per ton; output, 240 tons. Owned by Philip Schwartz and S. A. Henrichson, Frisco, Beaver county, Utah.

LINCOLN DISTRICT—BEAVER COUNTY.

DECEMBER MINE.

Located in 1878. Course N. E. and S. W.; contact vein, between porphyry or trap and white limestone. Smelting ore—lead, 33 per cent.; silver 100 ozs. and \$8 to \$10 gold per ton. Shaft down 100 feet deep; another 40 feet; tunnel in 130 feet. About 15 tons of ore out; \$45 per ton net. Owned by the December Gold & Silver Mining Company; Judge J. S. Boreman, President, Salt Lake City, Utah.

ROCKY DISTRICT—BEAVER COUNTY.

OLD HICKORY MINE.

Discovered 1876. Course of vein N. and S.; chimney opened 80 feet long; vein nearly vertical. Copper ore; average assay of first-class ore—copper, 43 per cent; silver, 15 ozs; gold, trace. Two shafts 80 feet deep, level run 139 feet, cross-cut 57 feet. Market value of first-class ore said to be \$80. Owners, J. F. M. Rockyfellow, G. W. Roberts, W. C. Sanders, J. M. Langsdorf and S. G. Gilliland. Office at Salt Lake City, Utah.

HOT SPRINGS DISTRICT—SALT LAKE COUNTY.

GENERAL SCOTT AND HENRY LODES.—(Patented).

Discovered 1874. Course, N. E. and S. W.; veins nearly vertical, in limestone country rock. Assays—lead, 65 per cent; silver, 19 ozs.; gold, a trace. Fifty to sixty tons of ore extracted. Owned by Henry W. Lawrence, Salt Lake City.

IRON DISTRICT—IRON COUNTY.

HAWLEY COAL MINE.

Discovered in 1880. Course of beds southeasterly; country rock is sandstone and shale. Four hundred feet of tunnel run. Owned by K. J. Hawley, Silver Reef, Utah.

WILLARD DISTRICT—BOX ELDER COUNTY.

IRON CHIEF MINE.

Vein of solid iron ore, 10 feet thick; carries 56 per cent metallic iron. Owned by J. R. Bamberger and B. F. Jones, Salt Lake City, Utah. Analysis:

Sisquioxide of Iron.....	76.217
Protoxide of Iron.....	.438
Silica.....	1.211
Alumina.....	3.830
Phosphoric Acid.....	.025
Sulphuric Acid.....	1.220
Lime.....	.085
Magnesia.....	.127
Combined Water.....	12.110
Hyroscopic Moisture.....	4.810
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Metallic Iron.....	53.693
Phosphorus.....	.109
Sulphur.....	1.220

PLEASANT VALLEY—EMERY COUNTY.

WHITE QUARTEN COAL MINE.

Discovered in 1878. Course a little north of west and south of east. Bed six to eight feet of good bituminous coal. Analysis:

Volatile Matter.....	44.125
Fixed Carbon.....	53.775
Sulphur.....	.086
Ash.....	2.100

Main tunnel in 300 yards, with two cross-entries on each side of main tunnel 50 to 100 yards each. Owners, Denver & Rio Grande Western Railway Company. Lessees, David and L. A. Williams.

MINERAL WAX—(*Utahcerite Claytonii*)—Barfoot.

COVINGTON CLAIM.

In Utah county, on headwaters of Spanish Fork Canyon, near Denver & Rio

Grande Western Railway. In beds of fossil shale of Tertiary age. Owned by E. Covington, Salt Lake City, Utah.

AMERICAN OIL MINE.

Wasatch county. Discovered 1882. Strike of beds N. and S.; 16 miles north of the Denver & Rio Grande Western Railway, on north branch of Spanish Fork Canyon. Owned by G. W. Rose, C. Fernandel and H. Lawson, Salt Lake City.

ROSE MINE.

Discovered 1881. Same neighborhood as the above. Shale bed 100 feet thick, overlaid by 25 feet of sandstone containing oil. Owned by G. W. Rose.

STODDARD MINE.

Located in 1881, in Nine Mile Canyon, a branch of Spanish Fork Canyon; heavy shale beds, with exudations of mineral wax. Near Denver & Rio Grande Western Railway. Owned by G. W. Rose, C. Fernandel and H. Lawson, Salt Lake City, Utah.

LITTLE COTTONWOOD DISTRICT—SALT LAKE COUNTY.

FLAGSTAFF MINE—(Patented).

Located July, 1867. Course of lode N. W. and S. E. Ore-chutes or chimneys varying from 350 feet to a few feet in length, with maximum width of 35 to three or four feet; at present two chutes or chimneys are being worked, one about 300 feet long, with maximum width of 14 feet, and one pipe, 8 by 4 feet; ore carrying 50 to 75 ozs. per ton—galena, carbonate and oxide of iron. Country rock, silurian limestone, gray and white lime below and dark, shaly limestone hanging-wall. Depth of mine about 1,000 feet, with levels varying in length from 800 to 1,450 feet; 103,000 tons of ore extracted, giving an average assay value of \$60 per ton. Owned by the Flagstaff Mining Company (Limited) London; Prof. M. Vincent, President, London; Mathias Gunderson, Manager, Alta, Utah. A good set of samples on exhibition.

EMMA MINE—(Patented).

Located in 1869. Course N. W. and S. E; dip N. E. into the mountain; foot-wall country rock, gray limestone; hanging-wall, dark bluish limestone. Average assay of ore about 50 per cent. lead and 100 ozs. silver per ton. Greatest depth of mine 650 feet; output of ore about 40,000 tons. Owned in London, England, by the New Emma Silver Mining Company; George Cullen, Superintendent, Salt Lake City, Utah. A good set of samples on exhibition.

JOAB LAWRENCE MINE—(Patented).

Located in 1867. Situated between the Flagstaff and Emma mines, on same lode. Country rock, gray limestone foot-wall and dark limestone hanging-wall. Course N. W. and S. E.; dip N. E. at a high angle. Workings 600 feet deep, with 5,000 feet of levels and drifts. Output about 10,000 tons, worth in the market \$75 per ton; average first-class samples on exhibition give 53 per cent. lead and 204 16-100 ozs. silver per ton. Owned by Joab Lawrence and Chas. Reed, Salt Lake City.

CITY ROCK CONSOLIDATED MINES—(Patented).

Consists of the City Rock, King of the West, Freeland, Queen Dowager, Utah No. 1, Utah No. 2 and Utah No. 3. Course of lode N. E. and S. W.; dip N. W. 70° to 80° below the horizontal plane. This is a true fissure vein in limestone country rock. Explored to a depth of 650 feet and 2,000 feet in length on the vein; ore is mainly a soft carbonate of lead, carrying \$35 to \$150 per ton in silver; average market value about \$40 per ton. Good samples of the hard and soft carbonates on exhibition. Owner and Manager, Lemuel U. Colbath, Salt Lake City, Utah.

LAVINIA & GRIZZLEY—(Patented).

Located Nov. 12, 1869, and April 9, 1870. Course of vein nearly N. and S.; is a nearly vertical fissure vein in limestone country rock, with several lateral spurs and branching veins. Ores are in most part soft carbonates, carrying from 40 to 100 ozs. in silver per ton. Has been a large producer, but no statistics sent in with the samples. Owned by A. E. Goodrich of Chicago, Ill.; H. C. Wallace, Agent, Alta City, Utah.

GARDNER & MORRILL MINING COMPANY.

Owners of Morrill & Sowles, Snowstorm Nos. 1, 2 and 3, Lincoln, Lord Lowdon, Coalpit, Peosta and Lewis mining claims. Developments consist of a tunnel 550 feet long and drifts 600 feet. O. L. Gardner, 183 Canal street, New York, President and Treasurer; J. C. Morrill, Superintendent, Alta City, Utah. Good set of samples on exhibition.

GUNDERSON MINE.

Located 1880. Course of vein N. E. and S. W. Samples on exhibition said to assay 40 per cent. lead and \$200 silver per ton. Owned by Gunderson and Sorensen, Alta City, Utah.

MOLTKE MINE—(Patented).

Located October, 1872. Twenty tons of ore extracted said to be worth \$150 per ton. Samples on exhibit, carrying 64 per cent. lead and 146 ozs. silver per ton. Owned by Henry Wagner, Salt Lake City, Utah.

BIG COTTONWOOD DISTRICT—SALT LAKE COUNTY.

ANTELOPE AND PRINCE OF WALES—(Patented).

Located June 15, 1870. Course of vein N. E. and S. W.; length of ore-chute 2,000 feet. True fissure vein in limestone; explorations 1,100 feet deep have produced 12,000 tons, worth in the market \$90 to \$100 per ton. Owned principally by Walker Bros. Salt Lake City, Utah. Good samples on exhibition.

MAXFIELD MINE.

Some good samples, said to assay 65 per cent. lead and 150 ozs. silver per ton. No data sent in with samples. W. F. James, Superintendent, Salt Lake City.

HAYS MINE—(Patented).

Located in 1877. Course N. E. and S. W.; extent of ore body unknown. About 500 feet of tunnel, shaft, drifts and incline in the way of development. Samples sent in said to assay 40 per cent. and upward in lead and \$8 to \$100 in silver per ton. About 50 tons of ore on the dump; none sent to market yet. Owned by John H. Scott, Salt Lake City, Utah.

IRMA MINE.

Located 1882. Course of vein easterly and westerly; quartzite foot-wall, white lime hanging-wall; ore-chute 50 feet long; prospect shaft 20 feet deep. Samples said to assay 45 per cent. lead and 65 ozs. silver per ton. Owned by Gustave Peterson, J. B. Cecil and W. H. Schock.

PICKWICK MINE—(Patent Applied For).

Located 1871. Course northerly and southerly; length of ore-chute or chimney 100 feet. Country rock grayish-white and blue limestone. Ore said to assay 40 per cent. lead and 200 ozs. silver per ton. Tunnel in 190 feet. Owned by E. L. Preston and John Warley.

OPHIR MINE.

Located 1870. Course of vein N. E. and S. W. Assay value 50 per cent. lead and 50 ozs. silver per ton. No other particulars sent in with the samples. Owned by Franklin Reed, H. C. Goodspeed, F. H. May and S. H. Chapman. Fred C. Reed, Manager, Salt Lake City, Utah.

REED & BENSON MINE—(Patented).

Located in 1870. Course N. E. and S. W. No statement of the extent of explorations. Assays about 38 per cent. lead and 110 ozs. silver per ton. Owned by Franklin Reed, H. C. Goodspeed, Rufus Hatch, F. H. May and S. H. Chapman. Fred. C. Reed, Manager, Salt Lake City, Utah.

NOTE.—The ores in both the Cottonwood districts are silver-lead in the form of carbonate and galena—the carbonates predominating largely in the portions of the lodes and deposits above water-level, which varies, according to locality, from 100 to 1,000 feet below the outcrop. Below the water-level the ores are unaltered sulphides of the various metals, such as iron, zinc, copper, lead and silver. The country rock is mainly limestone of the Silurian and Devonian ages, underlaid by heavy beds of schist and quartzite, all more or less displaced by eruptive masses of granite and traversed by porphyry dykes representing at least two periods of eruption. The ore bodies occur in a great variety of irregular forms, including a few true fissure veins such as the Prince of Wales and City Rock.

TINTIC DISTRICT—JUAB COUNTY.

DRAGON MINE—(IRON).

Course of lode E. and W. Worked by an open cut; 50,000 tons of ore extracted; used as a flux for the lead smelters in Jordan Valley, near Salt Lake. Analysis:

Metallic Iron.....	61.60
Silica.....	3.20
Sulphur.....	0.07
Phosphorus.....	0.29
Manganese.....	1.30

Good samples on exhibition. Owners, Tintic Iron Company; Geo. Y. Wallace, Manager, Salt Lake City, Utah.

EUREKA HILL MINE—(Patented).

Located February, 1870. Course of vein nearly N. and S.; carries ore through a length of 2,200 feet; country rock, limestone. Some portions of the lode carries chloride milling ores, and other portions has lead carbonate smelting ore. Several thousand tons of both milling and smelting ore has been extracted. Average market value about \$30. Explored by a shaft and levels to a depth of 400 feet. Good samples are on exhibition. Owned by the Eureka Hill Mining Company; J. Q. Packard, Manager, Salt Lake City, Utah.

NORTHERN SPY MINE.

Located Oct. 1, 1880. Course of vein nearly N. and S.; ore-chute explored 200 feet in length; vein 6 to 20 feet wide, in limestone country rock. Depth of working shaft 160 feet. Two thousand seven hundred tons of ore extracted; milling ore, dry crushing and roasting in a Stetefeldt furnace, etc. Average mill runs, \$65 per ton; 60 ozs. silver and \$10 to \$20 gold. Owned by the Tintic Mill & Mining Company; J. A. Sleeper, President, Chicago, Ill.; Alex. Graham, Superintendent, Homansville, Juab county, Utah. Samples on exhibition.

BILLING'S BROWN HEMETITE IRON MINE.

Located 1874. Course of lode N. W. and S. E.; 40 feet wide on outcrop; depth of workings 40 feet. Several thousand tons taken out and used as flux in lead smelting; market value at smelter \$7.50 per ton. Good samples on exhibition. Owned by John W. Snell, Salt Lake City, and G. Billing, Denver, Colorado.

SAN FRANCISCO DISTRICT—BEAVER COUNTY.

HORN SILVER MINE—(Patented.)

Located Sept. 24, 1875. Course of lode N. W. and S. E.; dip N. E., at a steep angle. Footwall country rock is a magnesian limestone, bedded nearly at right angles to the dip of the lode; the hanging-wall country is a trachytic-porphry. This lode is a true contact fissure, 20 to 100 feet wide, length of ore-chute unknown. Smelting ore—38.6 per cent. lead and 51.8 ozs, silver per ton; 100,000 tons extracted. Greatest depth of shaft 500 feet; 2,600 feet of drifts, levels and cross-cuts. Owned by the Horn Silver Mining Company; C. G. Francklyn, President, New York City; Harry C. Hill, Manager. Offices, 44 Wall street, New York City, and Deseret Bank Building, Salt Lake City, Utah.

CARBONATE MINE—(Patented).

Located in 1879. Course of lode nearly E. and W.—a true fissure, traversing a brecciated porphyry and trachyte country rock; fissure nearly vertical in some portions, but in others a steep dip to the north. Fissure 40 to 60 feet between walls, filled with broken fragments and boulders of porphyry and trachyte, and the ore is deposited on the surfaces of the boulders and in the spaces between them very much like the Bassick mine in Colorado. Smelting ore—51 per cent. lead and 124.38 ozs. silver per ton. Shaft down 540 feet, with levels 100 to 300 feet each way. Owned by the Frisco Mining & Smelting Company; office, Frisco, Beaver county, Utah; C. F. Bigelow, Manager.

COMET MINE—(Patent Applied For).

Located in 18—. Course of vein E. and W.; shows ore entire length of claim. Country rock, granitic-porphry. Copper and silver—copper, 30 per cent.; silver, 180 ozs.; gold, \$8. Workings—one tunnel, 82 feet, cross-cuts the lode; one shaft, 42 feet deep. Ore extracted, 15 tons high-grade and 150 tons low-grade. Owned by H. B. Compton, J. Q. Pattee and E. Morrison, Frisco, Beaver county, Utah.

CACTUS MINE—(Patented).

Located February, 1875. Course of lode nearly E. and W.; length of ore-chute unknown. Granitic-porphry country rock, broad ore channels, no walls yet defined. Copper-silver ore, suitable for matting in furnaces. Assays—copper, 27 per cent.; silver \$100 per ton; gold, a trace. One hundred tons of ore extracted—

none sent to market. Owned by Cactus Mining Company; Allen G. Campbell, President. Office, Frisco, Beaver county, Utah.

YELLOW JACKET MINE.

Located in 1878. Course N. and S.; country rock porphyritic-granite. Smelting ore—lead, 40 per cent. and 150 ozs. silver per ton. Shaft 150 feet deep; no other particulars given. Owned by C. West and B. Waddell, Frisco, Utah.

ITALIAN MARBLE QUARRY.

Located Jan. 1, 1882. Course of beds S. W. and N. E.; outcrop 1,500 feet long; thickness of quarry 200 to 400 feet. Very little development made; the samples on exhibition are from weathered fragments at the surface. The marble is white in some of the beds, and mottled or spotted in others. Owners, H. B. Compson, C. Morrison, J. Q. Pattee and J. F. Grant, Frisco, Utah.

AMERICAN FORK DISTRICT—UTAH COUNTY.

BORUSSIA & COLOGNE MINE—(Patent Applied For).

Located 1880. Course N. E. and S. W.; traced 300 feet in length. Country rock quartzite. Developments, 4 tunnels, 100 to 360 feet in length; 3 shafts, 160 to 300 feet deep. Smelting ore; output 1,500 tons; assays—lead, 54 per cent.; silver, 60 to 80 ozs., and gold, \$5 per ton. Owned by Utah Consolidated Silver & Gold Mining Company of New York; M. P. O'Hern, President; Wm. Bredemeyer, Manager, Salt Lake City, Utah.

WACHT AM RHEIN MINE—(Patented).

Located 1873. Course E. and W.; country rock quartzite. Explorations—3 tunnels, 40, 60 and 80 feet in length; 3 shafts, 25, 35 and 180 feet deep. Output of ore, 400 tons. Smelting ore—lead, 54 per cent.; silver, 40 to 80 ozs. per ton; market value, \$56 to \$98 per ton. Owned by Utah Consolidated Silver & Gold Mining Company of New York; officers same as preceding.

MEACQUE & SPARROW HAWK MINE—(Patented).

Located 1873. Course N. E. and S. W.; traced on surface 500 feet; country rock, quartzite. Tunnels 150 feet long; 2 shafts 100 feet deep; output, 120 tons. Smelting ore—lead, 54 per cent.; silver, 67 ozs. per ton. Owned as above.

BREDEMEYER NO. 2 MINE—(Patented)—Formerly Queen of the West.

Discovered 1873. Country rock, quartzite. Developments, 2 tunnels and 1 shaft. Smelting ore—lead, 54 per cent.; silver, 67 ozs.; gold, \$5 per ton. Owned as above.

LADY CATIIARINE & RUDOLPH MINE.—(Patent Applied For).

Located 1880. Course N. E. and S. W.; country rock, quartzite. Underground work 50 feet deep and 80 feet long. Smelting ore—lead, 54 per cent.; silver, 67 to 700 ozs., and \$5 gold per ton. Owned by Utah Con. Silver & Gold Mining Co. of New York City. M. P. O'Hern, President; Dr. Wm. Bredemeyer, Superintendent, Salt Lake City.

RUSSLER, EXCELSIOR AND GERMANIA MINES—(Patents for Russler and Excelsior and Patent for Germania Applied For).

Discoveries made 1872, 1880 and 1881. Course N. and S.; country rock, quartzite. Developments—shaft 200 feet deep, levels 250 feet on strike of the vein. Ore is smelting and milling; smelting ore—lead, 54 per cent.; silver, 67 ozs.; gold, \$13 per ton. Output of gold quartz, 10 tons; of silver-lead ore, 627 tons. Market value of gold ore, \$300 per ton; silver-lead ore, \$87 per ton. Owned as above.

[These statements in reference to the Utah Consolidated Silver & Gold Mining Company's mines were furnished by Dr. Wm. Bredemeyer.—J. E. C., Com'r.]

WEST MOUNTAIN DISTRICT, OR BINGHAM CANYON—SALT LAKE COUNTY.**FIRST WEST EXTENSION OF THE TELEGRAPH MINE.**

Course N. E. and S. W.; country rock, quartzite. Smelting ore—55 per cent. lead, 7 ozs. silver and \$1 to \$4 gold; market value about \$20. Depth of shaft 550 feet; tunnels and levels about 2,500 feet. Output of ore, 4,500 tons. Owned by Lewis Martin & Co., Bingham, Utah.

SPANISH MINE.

Located in 1865. Course about N. W. and S. E.; country rock, quartzite and porphyry. Ores concentrated and smelted. Shaft 330 feet deep; 125,000 tons of ore extracted—market value about \$20 per ton of concentrates. Owned by the Spanish Hill Mining Company of New York; L. W. Winchester, President, 65 Broadway, N. Y.; W. G. Galigher, lessee.

LEAD MINE OF UTAH—(Patented).

Located 1869. Course N. W. and S. E.; country rock, quartzite. Smelting ore. Several thousand feet of shafts and levels; 40,000 tons of ore extracted—market value \$20 per ton. Owned by the Lead Mine Company of Utah; S. Hanauer, President; G. D. Schell, Vice-President and Manager. Address, Salt Lake City.

OVERLAND MINE.

Located 1872. Course N. E. and S. W.; depth of shaft 350 feet. Output of ore 2,000 tons; milling ore—lead, a trace; silver, 6 ozs.; gold, \$15 to \$40. Owned by W. E. Blenny, Bingham, Utah.

QUEEN MINE.

Located in 1878. Course N. E. and S. W.; length of ore-chute said to be 658 feet. Milling ore—assays 4 to 5 per cent. lead, 116 ozs. silver, and \$8.25 gold per ton. Depth of work, 250 feet; length of levels aggregate 1,200 feet. Output of ore, 1,400 tons; value in market about \$80. Owned by the Northern Chief Mining Co.; Andrew Gross, President; John H. Martin, Superintendent, Bingham, Utah.

YOSEMITE MINE.

Located in 1870. Course N. E. and S. W.; dip, N. W. 40° to 60° below the horizon; country rock, quartzite and hornblend-trap or porphyry. Smelting ore—68 per cent. lead, 29 ozs. silver and \$1 to \$7 gold. Incline shaft down 600 feet; levels run every 100 feet. Output of ore, 35,000 tons; average market value of all ore shipped, \$30. Owned by T. N. Merrill and M. M. Kaighn, claims 2,400 feet in length. Address: Salt Lake City or Bingham, Utah.

MARCOM LODGE.

Located 1874. Course N. E. and S. W.; quartzite country rock. Smelting ore—40 per cent. lead, 20 to 80 ozs. silver and \$3 to \$8 gold per ton. Incline 30 feet, drift 80 feet; output of ore, 35 tons—market value, \$40 to \$60. Owned by A. J. Gauchet, Peter Clays and Dan Clays, Bingham, Utah.

STARTUS MINE.

Located ——. Country rock quartzite and porphyry; ore is a quartz-sponge and sand, with free sulphur; assays 30 ozs. silver and \$2 gold per ton. Owned by Geo. E. Lee, Bingham, Utah.

ALADDIN MINE.

Located 1872. Course of vein N. E. and S. W.; dip nearly vertical; country rock, hornblend-porphyry. Smelting ore—38 per cent. lead, 90 ozs. silver and \$3 gold per ton. Depth of workings 50 to 200 feet. Owned by the Aladdin Gold & Silver Mining Company; Frank A. Makeel, Superintendent, Salt Lake City.

COL. SELLERS MINE.

Located 1879. Course of vein E. and W.; shaft down 65 feet. Milling ore; 40 tons extracted—assays 2 ozs. silver and \$21 gold. Owned by Chas. F. Blandin, and Drs. Chapman & Whytock, Salt Lake City.

OHIO DISTRICT—PIUTE COUNTY.

FILLMORE MINE.

Located 1878. Course of vein N. and S. Is a milling ore; assays 100 ozs. of silver and \$10 gold per ton. Underground workings—one shaft 53 feet deep; drift

from bottom of shaft 20 feet; another shaft 15 feet deep and a drift 120 feet. One hundred tons of ore extracted. Owned by DeWitt C. Tate, C. B. Robinson, H. Roof and A. Robinson, Marysvale, Piute county, Utah.

CHATTANOOGA MINE.

Located 1879. Course N. and S.; country rock, quartzite and porphyry; surface ore assays \$75 per ton silver. Prospect shaft 20 feet deep; ore exposed at different points along the outcrop. Owned by H. D. Lisonbee, J. R. Staples and Orson Lee, Marysvale, Piute county.

DETROIT DISTRICT—MILLARD COUNTY.

JUNO MINE.

Discovered 1880. Course northeasterly. Bismuth ore; assays, bismuth 15 per cent, copper 25 per cent., silver 42 ozs., gold \$5 per ton; output, 35 to 40 tons of ore on the dump—none shipped. Shaft 50 feet deep. Owned by Charles M. Howard & Co., Deseret, Utah.

LOLO MINE.

Located November, 1879. Course N. E. Incline 50 feet deep; ore assays 40 per cent. copper, 7 ozs. silver and \$45 gold per ton. Owned by Charles M. Howard and James Puffer, Deseret, Utah.

DOMINO MINE.

Located Sept. 6, 1880. Course of vein northeasterly. Shaft down 40 feet; 15 or 20 tons of ore out—assays 15 per cent. copper and 104 ozs. silver per ton. Owned by H. G. Howard, et al.

E. P. H. MINE.

Located 1881. Course northeasterly. Shaft 100 feet deep; drift 25 feet and cross-cut 9 feet. Output of ore 500 tons; assays, 8 per cent. bismuth, 14 per cent. copper and \$10 silver per ton. Owned by the Deseret Gold & Silver Mining Company; John Gordon, President, Chicago; D. H. Crofts, Superintendent, Deseret, Utah.

Also large beds of marble and fire clay in same district.

BRADSHAW DISTRICT—BEAVER COUNTY.

CAVE MINE.

Located 1859. Course east and west nearly, in a series of caves and ore-pipes of varying dimensions, from a few feet to 40 feet or more in diameter. A smelting

ore—oxide of iron and carbonate of lead. The first-class ore assays 27 per cent. lead, 408.35 ozs, silver and \$14 gold per ton. Output 15,000 tons. Owned by the Frisco Mining & Smelting Company; Bigelow, Manager, Frisco, Beaver county, Utah.

COYOTE DISTRICT—IRON COUNTY.

AMERICAN ANTIMONY COMPANY'S GROUP OF MINES.

Albion, Alta, Blackbird, Signal, Lottie, Ida, Last Chance, Nevada, Flagstaff, Elvina, Stella, Ada, Emily, Star, Emma, Black Ben, Buckeye, Mammoth, Daisy, Pluto, Loomis and four other claims, situated in Coyote Mining district, eastern portion of Sevier River Basin, Iron county, Utah. Located in 1879 and 1880. General course of ore-beds N. E. and S. W.; ore lies in beds nearly flat, like coal-seams. Foot-wall is conglomerate; hanging-wall sandstone. The ore is a pure sulphide, carrying 71 per cent. metallic antimony. Analysis:

Metalic Antimony.....	71.32
Sulphur.....	28.13
Quartz.....	0.038
Iron.....	0.005

No other substances present.

Workings consist of 500 feet of tunnel, drifts and winzes; 200 tons of ore extracted. Market value per ton \$90 to \$125. Owners, The American Antimony Company; W. B. Leonard, President, New York; W. S. Godbe, General Superintendent, Salt Lake City, Utah.

RUSH VALLEY DISTRICT—TOOELE COUNTY.

GREAT BASIN MINE.

Discovered 1864. Course E. and W.; dip north, nearly 80° below the horizon. Length of ore-chute known to be 400 feet; country rock, limestone, quartzite and porphyry in large dykes. Smelting ore—lead, 50 per cent.; silver, 35 ozs per ton. Incline shaft, 50° pitch westerly on the plane of the lode, 940 feet, with levels at proper intervals on the lode from 300 to 500 feet long. Output several thousand tons—no record kept. Owned by the Great Basin Mining & Smelting Company, of Boston, Mass.

QUANDARY MINE.

Located 1864. Course E. and W.—on same vein as Great Basin mine. Ore-chute about 50 feet in length; country rock, limestone, quartzite and porphyry. Smelting ore—lead, 50 per cent; silver, 35 ozs. per ton. Shaft down 260 feet, and connects below by levels with the Great Basin mine. Owned by the Rush Valley Mining & Smelting Company. Postoffice, Stockton, Tooele county, Utah.

KITTIE GARDNER MINE.

Located in 1882. Course E. and W.; country rock, quartzite and white lime-

stone. Smelting ore—lead, 65 per cent.; silver, 35 ozs.; gold, from a trace to \$7 per ton; 25 tons extracted—market value \$50. Owners name not given.

LION MINE NO. 2 —(Patented).

Located 1875. Course of vein N. and S.; ore-chute 150 feet long. Country rock, quartzite and blue limestone. Smelting ore—lead, 65 per cent.; silver, 60 ozs. per ton. Shaft 275 feet deep; output of ore 500 tons. Owned by Handy & Harmon, of Cleveland, Ohio.

BLACK EAGLE MINE.

Located 1881. Course E. and W.; ore-chute 30 feet long. Smelting ore—lead, 50 per cent.; silver, 80 ozs. per ton. Shaft 25 feet deep; output of ore 10 tons. Owned by Swan Peterson, Stockton, Tooele county.

MONTANA MINE.

Located 1880. Length of ore-chute or chimney 25 feet; course N. and S.; country rock is quartzite. Smelting ore—lead, 70 per cent.; silver, 50 ozs. per ton. Output 15 tons. Owned by Hans Grau, Stockton, Tooele county.

VICTORIA MINE.

Located 1880. Course N. and S.; country rock, quartzite. Smelting ore—lead, 65 per cent.; silver, 45 ozs per ton; output 25 tons. Shaft 40 feet deep; tunnel 30 feet. Owned by Swan Peterson, Stockton, Tooele county.

STAR DISTRICT.—BEAVER COUNTY.

BIG BONANZA MINE.

Located Aug. 10, 1871. Course of vein N. and S.; country rock, dolomite and blue limestone. Smelting ore—lead, 48 per cent.; silver, 40 ozs.; gold, \$5 per ton. 200 tons of ore extracted, worth in market \$28 per ton. Owners South Star Silver Mining Company; Judge J. S. Boreman, President; P. S. Martin, Agent. Office, Salt Lake City.

TALISMAN MINE.

Located 1877. Course of vein N. E. and S. W.; contact between lime and shale. Smelting ore—lead, 50 per cent.; silver, 133 ozs. per ton. Shaft 250 feet on vein; tunnels, drifts and winzes about 1,000 feet; 60 tons of ore out—market value \$120 per ton. Owned by P. S. and W. S. Martin.

TRUE FISSURE MINE.

Located 1871. Course of vein E. and W.; length of chimney, 50 feet; country rock, lime and quartzite. Smelting ore—lead, 50 per cent; silver, 100 ozs. per ton. Shaft 40 feet deep; drift, 35 feet. Fifty tons out, market value \$80. Owned by P. L. Orth and P. S. Martin.

VICTORY MINE.

Located 1879. Course N. E. and S. W.; ore-chute 500 feet long. Smelting ore—lead, 60 per cent.; silver, 18 to 90 ozs. per ton. Shaft 130 feet deep; 300 feet of drifts; 250 tons of ore taken out. Owners. P. L. Orth, A. G. Campbell and W. H. Burnison.

LAKE SUPERIOR MINE.

Located 1872. Course N. E. and S. W.; country rock, granite and quartzite. Smelting ore—copper, 15 per cent.; silver, 20 ozs.; gold, \$5 per ton. Shaft 200 feet deep; drift 65 feet. Output 500 tons. Owned by James and John Forgie.

KANARRA MINE.

Located 1871. Course N. E. and S. W.; country rock, limestone. Shaft 200 feet deep; drifts 3,400 feet; output 200 tons. Smelting ore—lead, 45 per cent.; silver, 40 ozs. per ton. Market value, \$28 per ton. Owned by the Harrisburg Hill Mining Company; Judge J. S. Boreman, President, Salt Lake City.

MONITOR MINE.

Located 1871. Course N. and S. Shaft 250 feet deep; tunnels, drifts, etc. 550 feet; output of ore, 300 tons. Smelting ore—lead, 40 per cent.; silver, 42 ozs. per ton; market value, \$30 per ton. Owned by O. T. Clark.

WASCO MINE.

Located 1873. Course of vein N. and S.; country rock, limestone. Incline shaft (40°) down 850 feet; drifts and levels, 650 feet. Smelting ore, lead, 50 per cent.; silver, 70 ozs.; gold, \$5 per ton; output of ore 800 tons, market value \$50 per ton. Owned by Wm. Sloan and Peter Kemple.

BUNKER HILL MINE.

Located 1871. Course N. and S.; country rock, quartzite and shale. Deepest shaft, 50 feet; output of ore, 50 tons. Smelting ore—lead, 45 per cent.; silver 70 ozs. per ton. Owned by John Forgie, Frisco.

CREEDMOOR MINE.

Located 1871. Course N. and S.; country rock, dolomite and blue limestone. Shaft 100 feet deep; drifts, etc. 200 feet; output of ore, 50 tons. Smelting ore—lead, 50 per cent.; silver, 50 ozs. per ton. Owner, John Forgie, Frisco.

HOOSIER BOY MINE.

Owned by Tatham Bros. and J. F. Streeter.

HARRISBURG DISTRICT—WASHINGTON COUNTY.

BARBEE & WALKER MINES—(Patented).

Located in 1876. Impregnated beds of sandstone and shale, containing fossil vegetation, most of it carbonized ore-beds, from six inches to six or eight feet thick. Is free milling ore, carries from \$10 to \$100 or more silver per ton—average value \$20 to \$30 per ton. Good samples on exhibition. The average output is about 1,000 tons per month. Owned by the Barbee & Walker Mining Company. Office, Room 82, Drexel Building, Wall street, New York City; R. T. Gillespie, Superintendent, Silver Reef, Utah.

TECUMSEH, HORNY KING, SILVER FLAT, MAGGIE & CALIFORNIA.

Discovered in 1877. Bedded deposits in sandstone and shale. Course N. and S.; dip W. 15° below the horizon. Chimneys and lenticular deposits occur 50 to 200 feet long, and from a few inches to several feet thick, associated often with fossil remains of seeds, rushes, calamites, palm leaves, etc. Sometimes the ore chimneys are connected by stringers of ore, sometimes not. They occur the whole length of the property, off and on, irregularly. Free milling ore; wet stamp mill and pan amalgamation. Underground workings from 50 to 900 feet on the dip of the beds; levels at proper intervals 1,500 to 2,000 feet long. Output about 50,000 tons, average value about \$25 per ton. Owners, Christy Mill & Mining Company, organized in San Francisco, Cal; R. N. Graves, President; Henry S. Lubbock, Manager, Silver Reef.

BUCKEVE, SAVAGE AND LAST CHANCE MINES.

Located in 1876. Strike of beds N. E. and S. W.; ore occurs in a series of chimneys and beds, 100 to 200 feet long. Country rock, sandstone and shale; ore assays from \$20 to \$200 per ton. The workings are 600 feet on the dip of the beds, and 1,500 feet in length by levels at proper intervals. Average assay value of ore per ton, \$25 to \$30; output about 1,200 tons per month for the last three years. Owners—The Stormont Silver Mining Company: Schuyler Van Rensselaer, Secretary, New York; W. J. Allen, Manager, Silver Reef.

MILL CREEK DISTRICT—MORGAN COUNTY.

NORWAY MINE—IRON.

Discovered 1875. Vein N. E. and S. W.; chimney worked 65 feet; foot-wall, limestone; hanging-wall, quartzite. Metallic iron, 55 to 72 per cent.; silica, 2 to 3 per cent. Analysis:

Moisture.....	7	per cent.
Iron as per Oxide.....	80	" "
Silica.....	3	" "
Lime as Carbonate.....	4.5	" "
Alumina.....	4.3	" "
Manganese.....	None.	
Phosphoric Acid.....	None.	
Sulphuric Acid.....	Trace.	

Smelting and blast furnace ore. Worked 350 feet, tunnels, shafts and inclines; ore extracted, 350 tons. Owner, Norway Iron M. & M. Company of Utah; John T. Lynch, President; B. A. M. Froiseth, Secretary.

QUEEN CHRISTINE MINE—IRON.

Discovered 1871. Vein N. and S.; foot-wall, quartzite; hanging-wall, limestone. Metallic iron, 50 to 60 per cent.; silver, 2.50 ozs.; gold, \$9.04 per ton. Smelting and blast furnace ore. Worked 250 feet; open cut 50x30 feet; ore extracted, 500 tons. Owner Norway Iron M. & M. Company; John T. Lynch, President; B. A. M. Froiseth, Secretary.

GENERAL GRANT TUNNEL—IRON.

Discovered 1880. Vein matter N. E. Worked 124 feet. Owner, Norway Iron M. & M. Company; John T. Lynch, President; B. A. M. Froiseth, Secretary.

KING MINE—IRON.

Discovered 1876. Length of chimney 400 feet; foot-wall, quartzite; hanging-wall, limestone. Metallic iron, 50 to 70 per cent. Smelting and blast furnace ore. Worked 75 feet; open cut 30x15 feet; ore extracted, 375 tons. Owner, Norway Iron M. & M. Company; John T. Lynch, President; B. A. M. Froiseth, Secretary.

IRON SPRINGS DISTRICT—IRON COUNTY.

ECLIPSE MINE—IRON.

Discovered 1880. Vein N. and S.; chimney 100 feet wide; foot-wall, granite; hanging-wall, lime. Ore extracted, 150 tons. Owners, R. M. Norvell and James McGarry.

GREAT WESTERN MINE—IRON.

Discovered 1879. Vein N. E. and S. W.; chimney, 1,100 feet long; width of ore body about 200 feet. Foot and hanging-walls, granite; ore extracted, 700 tons.

LINDSAY MINE—IRON.

Discovered 1879. Vein N. and S.; croppings about 700 feet square; foot and hanging-walls, granite. Worked two tunnels in granite, about 50 feet each—6x7. Owners, J. R. Lindsay, D. McNamara, M. Cullen, T. D. Kelley and J. L. Turley.

NORTHERN CROSS MINE—IRON.

Discovered 1879. Vein N. E. and S. W.; croppings 700 feet long by 300 feet wide; foot and hanging-walls, granite; 70 per cent. metallic iron. Owners, J. H. Lindsay, J. Turley, M. Cullen and T. D. Kelley.

PIUTE DISTRICT—IRON COUNTY.

LINDSAY NO. 1 MINE—IRON.

Discovered 1881. Vein N. and S.; chimney about 500 feet wide by 600 feet long; foot and hanging-walls, granite. Metallic iron, from 65 to 71 per cent. Worked 100 feet tunnel in granite. Owners, J. R. Lindsay, A. G. Campbell, M. Cullen, M. L. Cody. H. Barnes and D. Ryan.

LINDSAY NO. 2 MINE—IRON.

Discovered 1881. Vein N. and S.; chimney 500 feet; foot and hanging-wall, granite. Metallic iron, 60 to 65 per cent.; worked 100 feet tunnel on the ledge; ore extracted, 1,000 tons. Owned by J. R. Lindsay.

PINTO DISTRICT—IRON COUNTY.

WAR EAGLE, LINDSAY 10 AND 11, SOUTHERN CROSS AND VERMILLION MINES—IRON.

WOOD AND HUNTER MINE—COAL.

Entered 1882. Vein E. and W., about two miles long and one mile wide; foot-wall, white sandstone; hanging-wall, white sandstone and petrified shells. Underground workings—tunnel 150 feet long, 6x7, and 30 feet opening. Owned by &co. Wood and Geo. Hunter.

MISCELLANEOUS EXHIBITS.

SALT LAKE TRIBUNE—

Cabinet specimens from 15 different mines.

PETRIFIED WOOD BOULDER—

Found on Weber River, two miles below Wanship.

BISMUTH—

From Northern Spy mine, Tintic District, Juab county; 50 per cent. bismuth, silver 200 to 400 ounces.

BISMUTH—

Carisa mine, Tintic District; samples of bismuth, assaying 50 per cent. and 630 ounces silver.

CAVE MINE—

Bradshaw District, Beaver county; one large specimen lead carbonate ore. (See specifications of other Cave mine exhibits).

TWO SMALL SILVER BRICKS—

From the E. P. H. and Juno mines, Detroit District. Deseret Gold & Silver Mining Company.

T. S. SMITH—

Cabinet specimens from 10 different mines.

GYPSUM—

From Gypsum Mammoth mine, Salt Creek District, Juab county.

BUILDING ROCK—

From freestone quarry, Sanpete county.

CRYSTALIZED SALT—

Large specimen, exhibited by Mr. Goodwin.

NATIVE SULPHUR—

Taken from the Cave mine, Bradshaw District, Beaver county. Occurs in beds of 3 to 12 inches thick with the carbonate ore and covering areas of 4 to 400 square feet.

SALT—

From Jenkins mine, Salt Creek District, Juab county.

SULPHATE OF SODA—

Or Glauber's salt, from Great Salt Lake.

COARSE SALT—

Taken crude from Great Salt Lake. Exhibited by John W. Snell.

FINE SALT—

Ground from the coarse Salt Lake salt. Exhibited by John W. Snell.

ROCK SALT—

From Nephi. Exhibited by John W. Snell.

SILICA—

Naturally fine. From Salt Lake county,

CLEAN COARSE SALT—

From the Great Salt Lake. Exhibited by Jeremy & Co., Salt Lake.

TABLE SALT—

In 5 lb. sacks. From the Great Salt Lake. Exhibited by Jeremy & Co.

FIRE BRICK—

Manufactured and exhibited by E. Morris, Salt Lake.

PLASTER OF PARIS—

Manufactured by E. Morris, Salt Lake.

CABINET SPECIMENS—

Cases exhibited by Prof. J. E. Clayton.

PHOTOGRAPHIC VIEWS—

Six frames. By C. R. Savage, Salt Lake.

GERMANIA LEAD WORKS—

Smelters and refiners, Salt Lake City, Utah, exhibit 5 cases showing the different processes of smelting and refining ore, also samples lead, shot, etc.

YELLOW AND RED FIRE PAINT—

Manufactured by F. J. P. Pascoe, Salt Lake City, from Utah iron.

BLACK MARBLE—

From F. J. P. Pascoe's quarry, near Salt Lake City.

SLATE—

From Fremont Island, the Great Salt Lake. Exhibited by F. J. P. Pascoe.

SPECIMENS—

Artistically put up as a cross by J. R. Staples, Frisco, Utah.

GLASS MATERIAL—

Manufactured from sand found in the mountains near Salt Lake City.

GRANITE—

Square block of granite, as used in the building of the Mormon Temple, Salt Lake City. From the Wasatch mountains.

SANDSTONE—

Three different kinds of building rock, from Red Butte Canyon, near Salt Lake City and Emigration Canyon (10 miles east from Salt Lake City). Owned and exhibited by the Salt Lake Rock Company.

HORTON'S IMPROVED WATER PIPE—

With iron couplings. Exhibited by the Ogden Pipe Company, Ogden, Utah.

HORN SILVER MINING COMPANY—

Exhibit 12 bars of lead and silver bullion.

SCALE WAX—

From Lister & Pancake's beds, Nine Mile Canyon, White River District.

MARBLE—

From the Wasatch Marble & Mining Co's quarries, Snake Creek, Provo valley, Utah.

MARBLE—

From the Tip Top mine, Wah Wah District.

ORNAMENTAL PLASTER OF PARIS—

Made by Wyatt & Forester, Salt Lake City.

VINEGAR—

Samples of cider, wine and malt vinegar, from the Vinegar Works at Ogden.

CONCRETIANARY LIMESTONE—

From Spanish Fork Canyon, Utah.

PETRIFIED WOOD—

From Barbee & Walker mine, Harrisburg District, carrying 36 ozs. silver.

ASBESTOS—

From Beaver county. Exhibited by J. H. Latey.

ASBESTOS—

Exhibited by Henry Bowen, Frisco, Beaver county.

ASBESTOS—

From Lincoln District, Beaver county. Exhibited by T. C. Bailey.

DRY CONCENTRATIONS—

Eight bottles, from the Carbonate mine. Sent by the Frisco M. & S. Co.

PIG IRON—

From Ogden Iron Works.

OIL PAINTING—

By R. Kirkam; representing the Mormon Temple at Logan as seen at sunset.

INDEX.

American Fork District—Utah county.....	14	Pinto District—Iron county.....	23
Borussia and Cologne.....	14	Lindsay No 1.....	23
Bredemeyer No. 2.....	14	Lindsay No 2.....	23
Lady Catharine and Rudolph.....	15	Pinto District—Iron county.....	23
Meacoque and Sparrow Hawk.....	14	Lindsay, 10 and 11.....	23
Russler, Excelsior and Germania.....	15	Southern Cross and Vermillion—Iron.....	23
Wacht am Rhein.....	14	War Eagle—Iron.....	22
Big Cottonwood District—Salt Lake county.....	11	Wood & Hunter—Coal.....	22
Antelope and Prince of Wales.....	11	Pleasant Valley—Emery county.....	8
Hays.....	11	White Quarters—Coal.....	8
Irma.....	11	Preuss District—Beaver county.....	7
Maxfield.....	11	Contact Marble Quarry.....	7
Ophir.....	11	Contact Mine.....	7
Pickwick.....	11	Rush Valley District—Tooele county.....	18
Reed & Benson.....	11	Black Eagle.....	19
Bradshaw District—Beaver county.....	17	Great Basin.....	18
Cave Mine.....	17	Kitty Gardner.....	18
Camp Floyd District—Salt Lake county.....	6	Lion.....	19
Geyser.....	6	Montana.....	19
Tip Top Marble Quarry.....	6	Victoria.....	19
Coyote District—Iron county.....	18	Quandary.....	18
American Antimony Company's Group.....	18	Rocky District—Beaver county.....	7
Detroit District—Millard county.....	17	Old Hickory.....	7
Domino.....	17	San Francisco District—Beaver county.....	13
E. P. H.....	17	Carbonate.....	13
Juno.....	17	Comet.....	13
Lolo.....	17	Cactus.....	13
Gordon District—Beaver and Millard counties.....	5	Horn Silver.....	13
Beaver.....	5	Italian Marble.....	14
Beaver Lake, No. 2.....	6	Yellow Jacket.....	14
Cave Creek.....	5	Star District—Beaver county.....	19
Mammoth.....	6	Big Bonanza.....	19
Sulphur King.....	6	Bunker Hill.....	20
Utah and Conqueror.....	6	Creedmoor.....	20
Harrisburg District—Washington county.....	21	Hoosier Boy.....	20
Barbee & Walker.....	21	Kanarra.....	20
Buckeye, Savage and Last Chance.....	21	Lake Superior.....	20
Tecumseh, Horny King, Silver Flat, Maggie and California.....	21	Monitor.....	20
Hot Springs District—Salt Lake county.....	7	Talisman.....	19
General Scott & Henry.....	7	True Fissure.....	19
Iron District—Iron county.....	8	Victory.....	20
Hawley Coal Mine.....	8	Wasco.....	20
Iron Springs District—Iron county.....	22	Tintic District—Juab county.....	12
Eclipse—Iron.....	22	Billings—Iron.....	13
Great Western—Iron.....	22	Dragon—Iron.....	12
Lindsay—Iron.....	22	Eureka Hill.....	12
Northern Cross—Iron.....	22	Northern Spy.....	12
Lincoln District—Beaver county.....	7	Uintah District—Summit county.....	3
December.....	7	Creole.....	4
Little Cottonwood District—Salt Lake county.....	9	Empire.....	4
City Rock Consolidated.....	10	Fourth of July.....	3
Einma.....	9	Glencoe.....	3
Flagstaff.....	9	Jupiter & Liberty.....	4
Gardner & Morrill.....	10	Lowell.....	4
Gunderson.....	10	McHenry.....	3
Joab Lawrence.....	10	Ontario.....	3
Lavinia & Grizzley.....	10	Provo—Iron.....	4
Moltke.....	10	Rebellion.....	5
Mill Creek District—Morgan county.....	21	Silver Key.....	5
General Grant Tunnel.....	22	Woodside.....	5
King Mine.....	22	West Mountain, or Bingham Canyon District	
Norway.....	21	Salt Lake county.....	15
Queen Charlotte.....	22	Aladdin.....	16
Mineral Wax—Utah county.....	8	Col. Sellers.....	16
American Oil.....	9	First West Extension Telegraph.....	15
Covington.....	8	Lead Mine of Utah.....	15
Rose.....	9	Marcom.....	16
Stoddard.....	9	Overland.....	15
Miscellaneous Exhibits.....	23, 24, 25, 26	Queen.....	16
Ohio District—Piute county.....	16	Spanish.....	15
Chattanooga.....	17	Startus.....	16
Fillmore.....	16	Yosemite.....	16
		Willard District—Box Elder county.....	8
		Iron Chief.....	8

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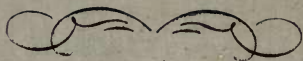
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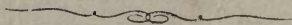
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